

TECHNOLOGY DRIVEN. WARFIGHTER FOCUSED.



Ground Vehicle Survivability

Mr. Steve Knott

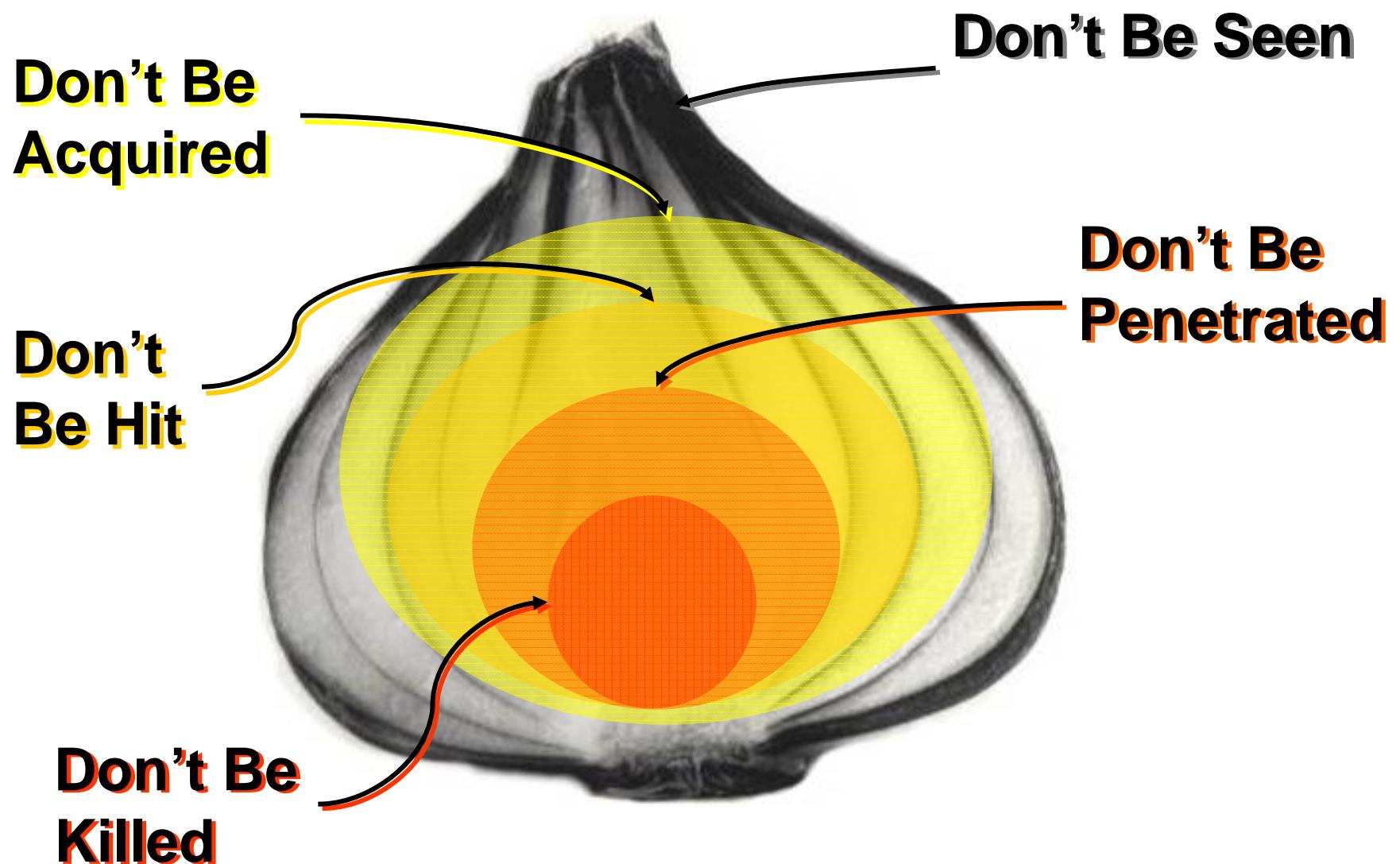
April 15, 2008

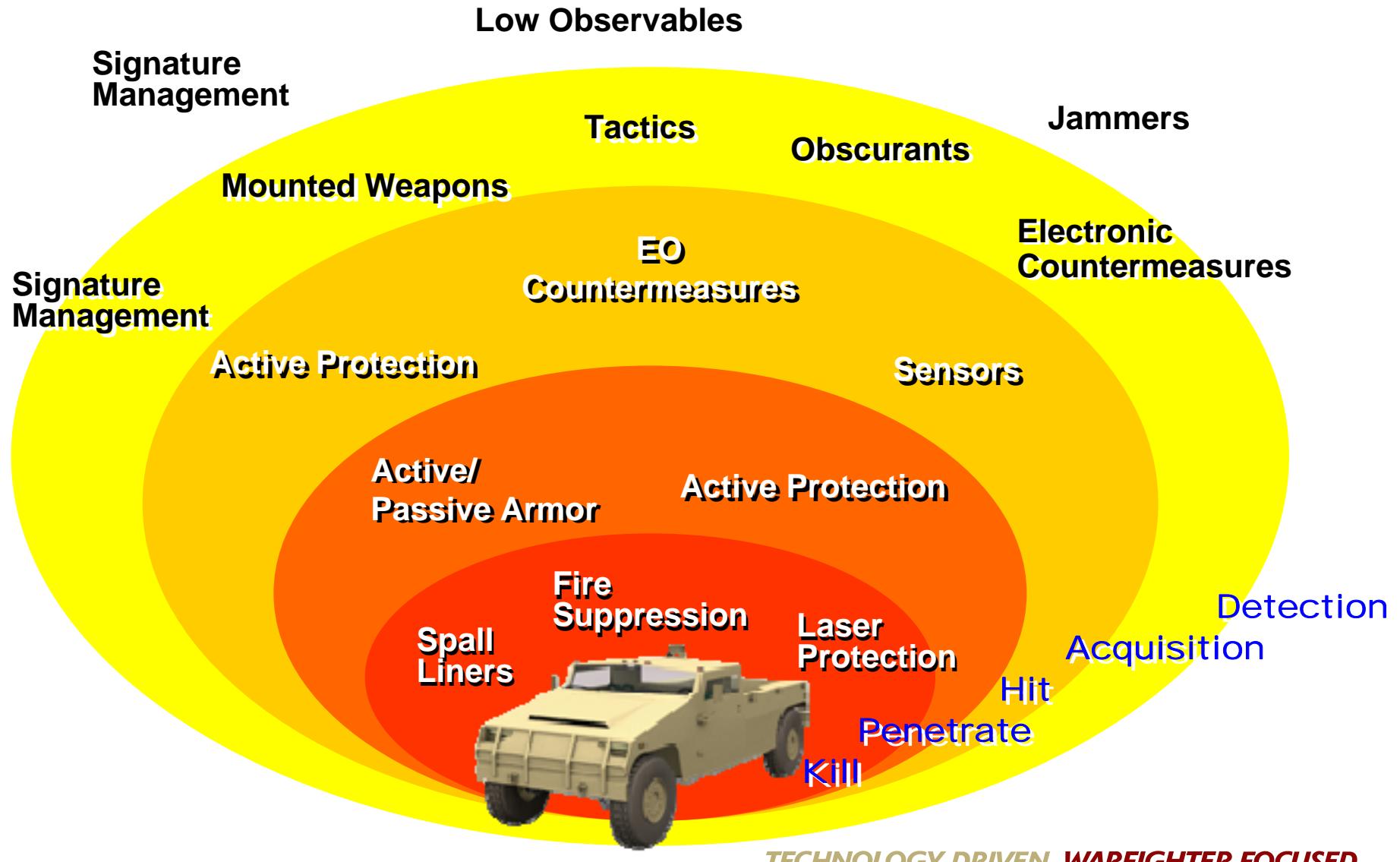
Report Documentation Page

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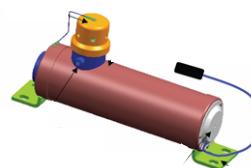
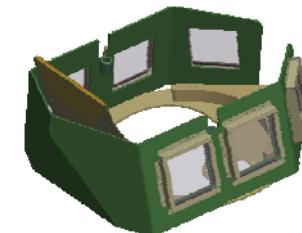
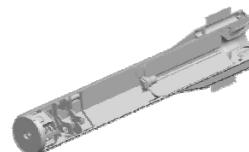
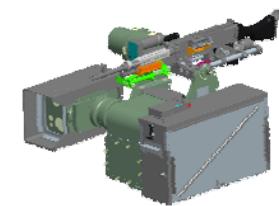
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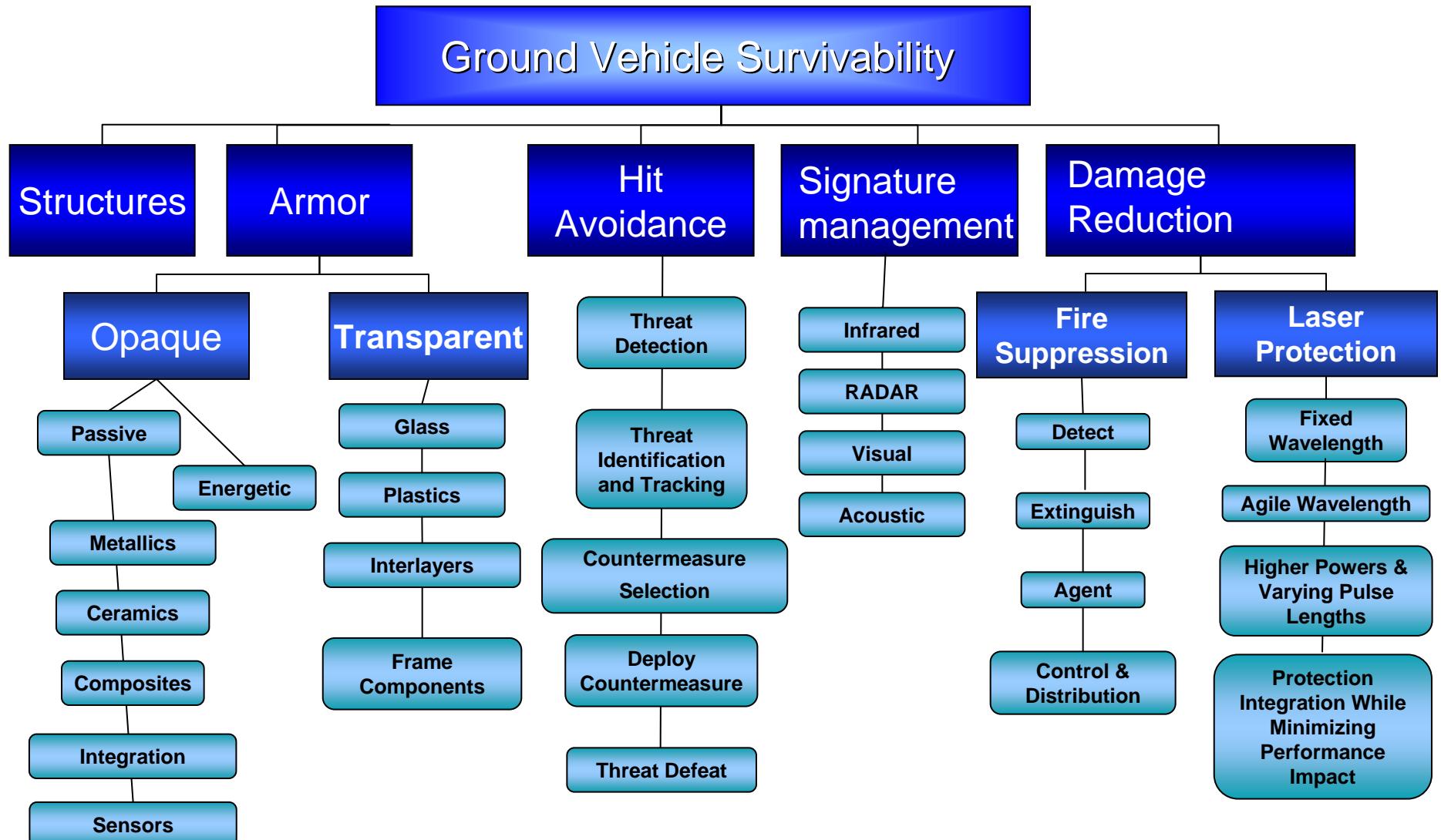


Design for Survivability



***It's about balancing
integration, mission, threat & technology***

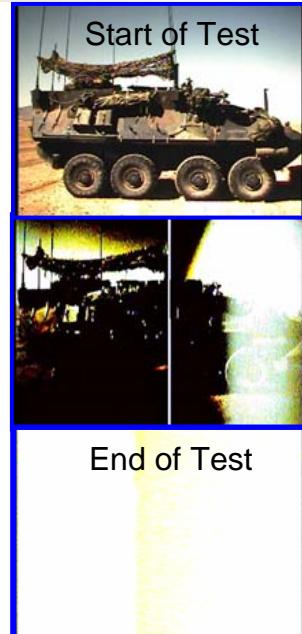
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Survivability - Technology Research Gaps



Multifunctional signature materials (visual, thermal RF, acoustic)

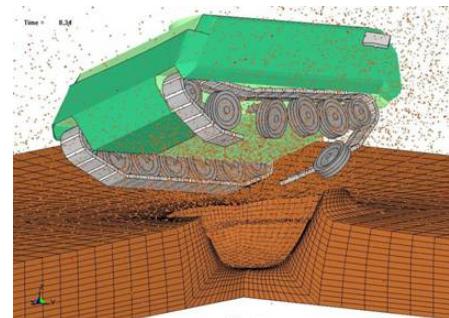


Mechanisms that switch high to very low optical transmission in a fraction of a nanosecond, and operate at all visible and near IR wavelengths.

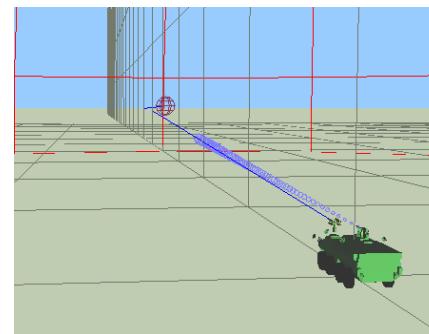


Predictive M&S - visual detection model

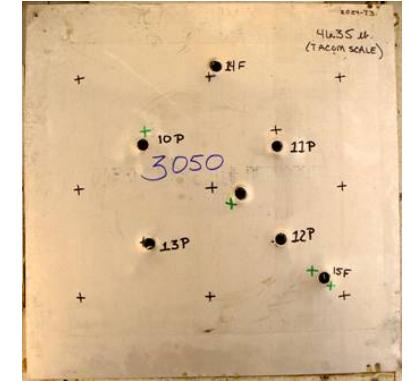
External fire extinguishing systems and agents



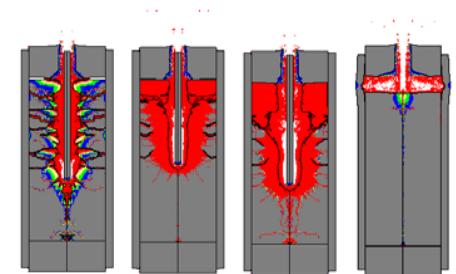
Predictive analysis of blast events – structures & crew



Predictive analysis for Active Protection systems



Lightweight multiple-hit armor



M&S for high velocity impact on ceramic/composites



Developing countermeasures to defeat full-spectrum threat munitions

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- Armor panel manufacturing
- Resin/binder analysis
- Vehicle structural beam construction
- Structural beam testing (environmental / durability)
- Armor ballistic testing
- Active protection system, systems engineering
- Active protection system event modeling
- Vehicle fuel tank research
- Ceramic transparent armor research
- Blast mitigation research

